WHAT IS CLAIMED IS:

1.   A method for converting text to concatenated voice by utilizing a digital voice library and a set of playback rules, the digital voice library including a plurality of speech items and a corresponding plurality of voice recordings wherein each speech item corresponds to at least one available voice recording wherein multiple voice recordings that correspond to a single speech item represent various inflections of that single speech item, the method including receiving text data, converting the test data into a sequence of speech items in accordance with the digital voice library, the method further comprising:

determining a syllable count for each speech item in the sequence of speech items;

determining an impact value for each speech item in the sequence of speech items;

determining a desired inflection for each speech item in the sequence of speech items based on the syllable count and the impact value for the particular speech item and further based on the set of playback rules;

determining a sequence of voice recordings by determining a voice recording for each speech item based on the desired inflection for the particular speech item and based on the available voice recordings that correspond to the particular speech item; and

generating voice data based on the sequence of voice recordings by concatenating adjacent recordings in the sequence of voice recordings.

2.   The method of claim 1 wherein a plurality of the speech items are glue items and a plurality of the speech items are payload items, the method further comprising:

setting a flag for any speech item in the sequence of speech items that is a glue item, wherein the playback rules dictate that the desired inflection for a glue item is based on the desired inflection for surrounding payload items in the sequence of speech items and that the desired inflection for a payload item is based on the desired inflection for nearest payload items in the sequence of speech items.

1   3.   The method of claim 2 wherein the plurality of speech items

2   includes a plurality of phrases.

1   4.   The method of claim 3 wherein the plurality of speech items

2   includes a plurality of words.

1   5.   The method of claim 4 wherein the plurality of speech items

2   includes a plurality of syllables.

1   6.   The method of claim 1 wherein multiple voice recordings that

2   correspond to a single speech item represent various inflections of that single speech

3   item and wherein the various inflections belong to various inflection groups

4   including a at least one standard inflection group, at least one emphatic inflection

5   group, and at least one question inflection group.

1   7.   The method of claim 6 wherein the at least one question

2   inflection group includes a single word question inflection group and a multiple

3   word question inflection group.

1   8.   The method of claim 1 wherein the plurality of speech items

2   includes a plurality of words, the method further comprising:

3   determining a pitch value for each speech item in the sequence of

4   speech items by normalizing the impact value for the particular speech item, wherein

5   the desired inflection for each speech item is further based on the pitch value for the

6   particular speech item.

1   9.   The method of claim 8 wherein the pitch value for each speech

2   item is between one and five.

1   10.   The method of claim 9 further comprising:

2   remodulating the pitch values for the sequence of speech items such

3   that no more than two consecutive words have the same pitch value except when the

4   particular consecutive words lead a sentence.

11. The method of claim 9 further comprising:

remodulating the pitch values for the sequence of speech items such that there are at least two words between any two words having a pitch values of five.

12. The method of claim 9 further comprising:

remodulating the pitch values for the sequence of speech items such that there is at least one word between any two words having pitch values of four.

13. The method of claim 9 further comprising:

remodulating the pitch values for the sequence of speech items such that any word that is at the beginning of a sentence has a pitch value of at least three.

14. The method of claim 9 further comprising:

remodulating the pitch values for the sequence of speech items such that any word that immediately precedes a comma or semi-colon has a pitch value of not more than three.

15. The method of claim 9 further comprising:

remodulating the pitch values for the sequence of speech items such that any word that is at the end of a sentence ending in a period or exclamation point has a pitch value of one.

16. A method for converting text to concatenated voice by utilizing a digital voice library and a set of playback rules, the digital voice library including a plurality of speech items, including glue items and payload items, and a corresponding plurality of voice recordings wherein each speech item corresponds to at least one available voice recording wherein multiple voice recordings that correspond to a single speech item represent various inflections of that single speech item, the method including receiving text data, converting the text data into a

8   sequence of speech items in accordance with the digital voice library, the method

9   further comprising:

10   determining a syllable count for each speech item in the sequence of

11   speech items;

12   determining an impact value for each speech item in the sequence of

13   speech items;

14   determining a pitch value within a range for each speech item in the

15   sequence of speech items by normalizing the impact value for the particular speech

16   item;

17   determining a desired inflection for each speech item in the sequence

18   of speech items based on the syllable count and the pitch value for the particular

19   speech item and further based on the set of playback rules wherein the playback

20   rules dictate that the desired inflection for a glue item is based on the desired

21   inflection for surrounding payload items and that the desired inflection for a payload

22   item is based on the desired inflection for nearest payload items with priority being

23   given to speech items having a greater pitch value such that the desired inflections

24   are determined first for speech items having the greatest pitch value and, thereafter,

25   are determined for speech items in order of descending pitch;

26   determining a sequence of voice recordings by determining a voice

27   recording for each speech item based on the desired inflection for the particular

28   speech item and based on the available voice recordings that correspond to the

29   particular speech item; and

30   generating voice data based on the sequence of voice recordings by

31   concatenating adjacent recordings in the sequence of voice recordings.

1   17.   The method of claim 16 wherein the plurality of speech items

2   includes a plurality of phrases.

1   18.   The method of claim 17 wherein the plurality of speech items

2   includes a plurality of words.

1   19.   The method of claim 18 wherein the plurality of speech items

2   includes a plurality of syllables.

1   20.   The method of claim 19 wherein multiple voice recordings

2   that correspond to a single speech item represent various inflections of that single

3   speech item and wherein the various inflections belong to various inflection groups

4   including a at least one standard inflection group, at least one emphatic inflection

5   group, and at least one question inflection group.